

ART. II.—*Case of Successful Extirpation of a Fibrous Tumour of the Right Ovary by the large Peritoneal Section.* By WASHINGTON L. ATLEE, M. D., Professor of Medical Chemistry in the Medical Department of Pennsylvania College, Philadelphia, Penn. (With two wood cuts.)

September 17th, 1848. I was called upon to visit Mrs. E. K——, of Philadelphia, for the purpose of examining a large abdominal tumour. Before engaging in the examination, the patient gave me the following particulars of her history:—

She is in the twenty-ninth year of her age. When fourteen years old she first menstruated, and during the first catamenial period she took cold, which suddenly suspended the discharge, and this was succeeded by very severe pain. The menses did not recur again for two years, but since their establishment they have always been regular in their return, though invariably painful, and, at times, clotted. When twenty years old, she married Capt. R. K., who is still living. She has had four children. Her first child she suckled over two years; the second, over one year; the third, five months, when it died; and the fourth, thirteen months old, is now at the breast. Three weeks after her third confinement, which was on the 1st of March, 1846, she was attacked with inflammation low down in the right side. During this attack, she felt, low in the right side, a tumour about the size of her fist, oblong in shape, and very movable. It was then so movable that it would fall from side to side, and could easily be taken hold of by the hand. About three months after this she had another attack of inflammation in the same place. For both these attacks, she was very actively treated by an intelligent physician of this city. She was bled, leeches, cupped, and blistered. The tumour has always been sore to the touch, and increased regularly, but slowly in size. Her fourth child was born September 1st, 1847, and about four months before this event the tumour became fixed in the right side near the groin. Previously to this, however, it had been movable, and became gradually less and less so until it became permanently fixed. Since the last parturition, the tumour has enlarged with very great rapidity. Her general health has been, and still continues, pretty good. The tumour, however, is becoming very painful, particularly upon lying down, which prevents her getting much sleep. Ever since the birth of her first child, there has been entire procidentia of the uterus, which now exists to such an extent that the whole uterus hangs out between the thighs, subjecting her to the greatest inconvenience. This has been the case about seven years, and during this whole period urination has been difficult, and for one year past there has been equal difficulty in defecation. She is also subject to habitual constipation.

When the patient stands erect, dressed, she looks as large as a woman at full pregnancy, but by no means as symmetrical in shape. The right side, low down, is exceedingly prominent, both laterally and anteriorly, so as to catch the eye at once. On exposing the tumour in the same position, it is seen to overlap the groin, so as to project downwards upon the thigh in such a way that the open hand, placed between it and the thigh, and its ulnar edge pressed against the groin, is completely buried beneath it. This portion of the tumour presses so much against the upper part of the thigh, when the patient sits, that she cannot bring her thigh up to a right angle.

Upon placing the patient in bed upon her back, and exposing the abdomen, the tumour seems more prominent, in consequence of the abdominal viscera receding. It fills up the whole of the right iliac and right lumbar regions, the whole of the right side of the hypogastric and umbilical regions, overlapping the crest of the ileum, and the whole of the groin, and burying within it the superior and inferior spinous processes of the ileum. Upon pressing in the walls of the abdomen around it, it can be felt dipping deeply towards the spine and into the pelvis. On its anterior surface can be felt and seen a shallow sulcus, running obliquely across the tumour, from the right lumbar region to the symphysis pubis, which seems to divide the mass into two unequal portions, the smallest being beneath. The tumour is very firm in texture, though faintly elastic, but does not in the least fluctuate. It is so remarkably prominent that it can be clasped between the two hands placed on opposite sides of it; but, even with such a purchase, it can be only very slightly moved—indeed, it seems so firmly fixed, that its mobility is doubtful. The tumour is more or less sore on handling, but pressure on its upper part gives her most pain. The skin over the whole tumour is perfectly movable.

The uterus is lying between the thighs, and has dragged the vagina with it, so that it is completely inverted. It is somewhat tumefied. After some manipulation, I succeeded in reducing the uterus and vagina, and proceeded to the examination, both per vaginam and per rectum. The rounded and resisting surface of the tumour can be felt projecting deeply into the pelvis upon the right side, occupying a position between the rectum and vagina; and here, also, it seems *very* indistinctly movable. Immediately after concluding this part of the examination, the uterus was again expelled.

On percussing the surface of the abdomen, every part occupied by the tumour returned a flat sound, and all other parts were resonant. The intestines were principally upon the left side. In the region of the left ovary there also appeared to be some thickening.

This examination caused some soreness and shooting pains through the tumour for a couple of days after.

October 31st. My brother, Dr. J. L. Atlee, being in the city, and my uncle, Dr. E. A. Atlee, examined the patient with me to-day. The tumour has increased in size, but in other respects the condition of the patient is the same as above stated.

January 10th, 1849. I called to see Mrs. R., with my friend, Prof. W. R. Grant, M. D., with the view of further exploring the tumour, in order to ascertain more exactly its character. Into the most prominent part of the tumour, below the sulcus, I now plunged a trocar and canula directly down to the depth of about three inches. It required considerable force to drive it in. At first, I passed it in about an inch and a half, and withdrew the trocar, but as nothing flowed out, I again introduced the trocar, and pressed it up to the hilt. Still nothing flowed through the canula, not even blood. Permitting the canula to remain, I passed a probe through it, and it came against a resisting substance of great solidity. On attempting to withdraw the canula, I found it difficult to do so; it stuck very firmly, being grasped by the firm tissue of the tumour, so as to offer great resistance to its escape. Immediately on the removal of the canula, about an ounce of venous blood escaped from the wound. Very little pain accompanied the puncture.

Before using the trocar, I divided the skin, with the scalpel, about an inch in length, and to the depth of the surface of the tumour, in order that we might see its surface, and also estimate the character of the attachment, at

this point, between the tumour and its coverings. The tumour is considered to be fibrous in its character.

At this time, the following measurements were taken : A tape, placed on the middle of the crest of the ileum, against the exterior and superior edge of the tumour, and stretched across it, parallel with the sulcus, to the symphysis pubis, against the anterior and inferior edge of the tumour, measures fifteen inches ; another, placed at the interior and superior edge of the tumour, about two inches to the left of the umbilicus, and passing at right angles across the first tape, to the middle of the groin, against the exterior and inferior edge of the tumour, measures thirteen inches ; one encircling the tumour, on the plane of the abdomen, twenty-six inches ; and, lastly, one passed round the hips and tumour thirty-nine inches. These measurements, as well as the location, size, and general appearance of the tumour, will be better understood by referring to figure 1st, sketched by Dr. Grant.

The tumour, at this time, was immovably fixed in its position, and is still increasing in size. The operation was followed by no unpleasant results ; the wound healed up kindly, and with very little suppuration.

15th. To-day I informed the patient that I had concluded, after due consideration, to give her the chance of an operation if she desired it. Previously to this, we had frequently talked over the propriety of an operation ; but, until the exploration on the 10th instant, I could not fully consent to undertake it, and my assent was given only on the following conditions : that she would weigh well all the dangers of the operation, which were clearly and fairly represented. I informed her that the tumour was so firmly attached to the bones of the pelvis that it rendered her case, at this stage of it, quite obscure ; that it was impossible to say whether it was a fibrous tumour of the uterus, or of the ovary ; but, from the history she had given of it, I considered it one or the other ; and that, in either case, I thought an attempt at its removal, in view of the rapidity of its growth and its great annoyance, was perfectly justifiable. I also informed her that this attempt might fail ; that the tumour was manifestly so incorporated with the bones and large arteries of the pelvis, that the accomplishment of its removal was uncertain ; that I would, notwithstanding, make the attempt, if she desired it, and proceed with the operation as long as I considered it safe to do so, with the view of completing it ; but that, if anything, during its progress, should show that it would be necessarily fatal to proceed, I would stop short of that point, and close up the wound without finishing the operation.

The patient replied, that she had well considered all the dangers of the operation, that she had made up her mind to have it done, and that she would leave all the arrangements for it to me.

20th. Dr. Grant called with me to see the patient, and I reiterated the above statement in his presence, and received the same reply. He, also, assured her that his views corresponded with those expressed by me.

After this the tumour continued to increase rapidly in all directions, becoming more and more burdensome. Her sleep was greatly interfered with, and she suffered severe pain and soreness through the tumour and lower limbs.

March 6th. The size of the tumour and sufferings of the patient are causing her to be urgent about the operation. I have, therefore, fixed on the 15th instant for it. Before undertaking it, however, I thought it best to sound the uterus and bladder. Simpson's sound passes into the uterus, as it lays between the thighs, to the distance of five inches, unaccompanied with pain or soreness. The vesical sound indicates no particular irritation of the bladder, although its introduction occasions a slight sensation of pain.

From this time until the day for the operation, the patient was directed to be particularly careful of her diet, to live on light, nutritious, unstimulating food, to keep her bowels regular, to avoid exposure and fatiguing exercise.

13th. The patient took a dose of castor oil this evening for the purpose of entirely unloading the alimentary canal, and she was ordered not to take any solid food afterwards. After the operation of the oil, she was consequently kept on liquid and light diet during the succeeding day and night, so that, on the morning of the day appointed, I found my patient in an admirable condition for the operation. Her pulse was eighty-two to the minute.

15th. At ten o'clock A. M., all the arrangements for the operation being ready, I stated to the medical gentlemen present what I had before stated to my patient. Dr. Grant, as my principal assistant, and Drs. E. A. Atlee, Darrach, Meckley, McIntyre, Kaski, Hunter, and Gobrecht, and Messrs. Murray and White, medical students, with several female friends, were present. After the patient was placed upon the table in the proper position, thirty or forty drops of a mixture of one part of chloroform and two parts of ether were poured into a handkerchief, folded like a funnel, which was placed loosely over the mouth and nose, so as not to exclude atmospheric air, in which way she inhaled it until she lost sensibility, requiring, for this purpose, not over one minute. I permitted her to become perfectly unconscious for the first incision, as it necessarily would be a very extensive one, and through the most sensitive tissue. Immediately upon the full action of the chloroform being established, I made an incision, extending from the symphysis pubis, across the tumour, below the sulcus, to the middle of the crest of the ileum on the right side. This incision was curvilinear, its convexity presenting downwards, its greatest distance from the sulcus about three inches, while its two extremities approached the sulcus, so that the incision represented the arc of a circle, while the sulcus represented its chord; or, in other words, the former was the bent bow, and the latter its string. The incision was sixteen or seventeen inches long, and was at once boldly carried down to the surface of the tumour through all the intervening tissues. This portion of the tumour was covered by a dense aponeurosis, derived most probably from an expansion of that portion of the united tendons of the internal oblique and transversalis muscles, which is inserted into the linea ileopectinea, and also of the inferior border of Poupart's ligament. The whole tumour, below the sulcus, was covered unequally with this aponeurotic expansion. It was, however, not firmly adherent, but was readily and rapidly detached from the surface of the tumour by the point of the index finger and handle of the knife. By this means (the finger, the handle and edge of the knife), the tumour below the sulcus was easily exposed; but considerable difficulty arose upon reaching the sulcus. This was found to correspond with an indentation in the tumour about an inch deep, and occupied by Poupart's ligament, and the lower edges of the abdominal muscles, Poupart's ligament being tightly stretched, from the superior spinous process of the ilium to the symphysis pubis, across the tumour, and, as it were, sawing into its very substance, and binding it down into the bones of the pelvis. It was with great difficulty that the ligament was dissected from this deep fissure, which being done, a body of muscular tissue—the abdominal muscles—had also to be detached, when finally I came upon the peritoneum, which, at this point, was reflected from the surface of the tumour on to the internal surface of the abdominal muscles. The peritoneum was now severed from one end of the incision to the other, after which I passed my hand into the cavity of the abdomen to survey

the great body of the tumour, and to ascertain the existence or not of adhesions. There were no adhesions of the viscera to the tumour, and none between the peritoneal surface of the tumour, and the parietes of the abdomen; but the tumour was firmly bound down to the whole iliac fossa. With one hand in the abdomen, and the other on the outside, placed so as to grasp the tumour, I was yet unable to give it the least motion, and upon further examination I found that the tumour was *saddled* across the crest of the ileum, its superior and inferior spinous processes, and across the whole brim of the pelvis to the symphysis pubis, adhering firmly both to the fascia of the dorsum and to that of the fossa of the ileum, dipping down on each side of these bones, which penetrated deeply into its substance, and seemed almost incorporated with it. In extending the survey, within the abdomen, towards the linea alba, I found that the peritoneal coat of the tumour gradually run into, and became part of, the broad ligament of the uterus. While examining this part of the pelvis, I felt the common iliac artery of the right side beating strongly against my hand, and I could trace the external iliac in close contact with the tumour, passing beneath it, and pressed upon by it. A very strong muscular and tendinous attachment, binding the tumour down to the symphysis pubis, still remained at the internal extremity of the sulcus. This evidently was the insertion of Poupart's ligament, and was cautiously severed, with the hope of being able to tilt up this end of the tumour. Still, although it was liberated from all its coverings, from the grasp of Poupart's ligament, and the lower edge of the muscular walls of the abdomen, the tumour remained immovable. After detaching the pubic end of Poupart's ligament, and exposing this part of the tumour, the round ligament of the uterus came into view, passing close upon the tumour, indeed seeming to penetrate into its substance, curving through the tumour from the uterus to its insertion in the pubis. It was very much elongated and relaxed, and was carefully detached by the knife and left entire. The proper pedicle of the tumour—the broad ligament and Fallopian tube—was the only attachment remaining, excepting those very firm and extensive adhesions to the bony pelvis above described. At this stage of the operation, I felt like coming to a stand, closing the wound, and leaving the patient to her fate; but, upon reviewing the whole ground, I concluded that, although the separation of the tumour would be exceedingly difficult, yet it involved no positive risk excepting the attachment to the iliac and femoral vessels. From the middle of the crest of the ilium to the symphysis pubis, the edge of bone was deeply buried in the tumour, which overlapped it to a considerable extent on both sides, adhering to the fascia of the fossa and dorsum of the ilium. It was plain, therefore, that there was no other danger than the iliac and femoral vessels, which, with proper care, could be avoided; and, not deeming the difficulties insurmountable, I determined to proceed with the operation. Passing my left hand into the cavity of the abdomen as a guard to the intestines and iliac vessels, and, at the same time, as a guide to direct the cutting instruments over the face of the iliac fossa, and directing an assistant to seize hold of the tumour that it might be strongly and forcibly lifted up, and tilted from side to side as the separation progressed, I attempted to use the scalpel in the ordinary way; but this was impossible, in consequence of the inconvenient angles at which the knife had to be used, as the tumour overlapped the bones to so great an extent, and was so closely incorporated with them. I was, therefore, forced to introduce the point of the knife between the crest and planes of the ilium and the tumour, and thrust it forward like a chisel, substituting at times the probe-pointed

bistoury, at others, a strong scissors, before I could detach any portion of it. I finally succeeded, however, by scalpel, bistoury, and scissors, in relieving it from its attachments to the crest of the ilium, and the corresponding external and internal faces; and next, from the superior and inferior spinous processes, and the corresponding portions of the iliac fossa. This was an exceedingly difficult part of the operation, as the tissue of the tumour itself was so unyielding, as well as its attachment to the bones, that little aid was received from the assistant's efforts to manage the tumour to my advantage. The knife, too, had to be directed solely by the sense of touch, as nothing here could be seen. After accomplishing this much, however, the remaining adhesions to the brim of the pelvis admitted of the tumour being tilted backwards and forwards, so that the future dissection could be directed by the eye. This was fortunate, as particular caution was requisite, in consequence of the relation of the iliac and femoral vessels to the tumour. Upon attempting to raise the latter from its bed, it was found that these vessels were also elevated, showing an attachment between them, or at least their sheath, and the tumour. Before separating this attachment, I dissected the tumour from everything else. I cut through the sheet of peritoneum, constituting the broad ligament, until I completely insulated the pedicle of the tumour, which contained the Fallopian tube, and then passing around it a six-stranded silk ligature, waxed, but not twisted, Dr. Grant tied it securely. Upon drawing the first knot, the usual manifestations of ligating the Fallopian tube were quite evident. The pedicle, which was small and principally membranous, was now detached close upon the tumour. The only adhesions now remaining were those to the vessels. This dissection requiring great care, and the day being dark, in consequence of the sky being overcast with clouds, I had two sperm candles lighted to enable me to prosecute the balance of the operation with safety. This was satisfactorily done, and the tumour was lifted away.

There still remained, adhering to the ilium, brim of the pelvis, and vessels, small layers of fibrous matter belonging to the tumour, but which could not be separated with it. This was all carefully dissected off, excepting a small portion adhering to the vessels.

The wound was now carefully examined, the clots were removed by picking them out, and the parts well cleansed with soft sponges dipped in lukewarm water. A vein was found bleeding on the internal face of the abdominal muscles, and tied; and the wound was left exposed for some time afterwards. No other vessel required the ligature. The hemorrhage was principally venous, and did not exceed in amount four ounces.

The omentum, which was largely about the wound, was now spread evenly over the intestines, and the wound was brought together, and secured by eight needles with twisted sutures, between which were placed numerous strips of adhesive plaster—the two ligatures being brought out at the nearest points. Over these was laid a thick napkin soaked with lukewarm water, and over all was applied a figure of eight bandage, including the right thigh. The patient had her clothing changed, and afterwards carried to bed. The uterus was replaced in the pelvis. A few teaspoonfuls of brandy and water were given to her, although there was no evidence of great prostration, her pulse having remained good to the last.

The patient, although under the influence of anæsthesia, sufficiently to destroy all sensation of pain, retained a certain amount of consciousness, as she conversed with me most of the time during the operation in reference to its

various stages; and when the tumour was removed, she asked if it was out, and requested to see it. It was immediately lifted up and shown to her.

The intestines remained perfectly quiet. The stomach and diaphragm were equally undisturbed. There was no action of the abdominal muscles. Everything about the abdomen seemed almost as passive as in the subject on the dissecting table during the whole operation, which lasted thirty-seven minutes. The temperature of the room was kept at about 80° Fahrenheit.

The patient was now placed upon absolute diet, and the dressings of the wound were to be kept constantly moistened with cool water. Drs. Kaski, Hunter, and Gobrecht, recent graduates, and Messrs. Murray and White, students of medicine, were appointed to take charge of the patient, and in turns to watch her night and day, charged to make hourly memorandums of her condition, and to report to me any unfavourable symptom that should arise.

At 3 o'clock P. M., her pulse was 96, soft, and open; skin warm and soft; reaction is becoming pretty well established; complains some of pain in the back, to relieve which, she was inclined upon the right side; yawns; some oozing of blood from the external angle of the wound; there has not been any gastric or diaphragmatic disturbance, and no tendency to sinking. Removed by the catheter 3j of clear and good-coloured urine. Thermometer 76°. Has been drinking barley water.

5 P. M. The patient has had several sweet naps of from fifteen to twenty minutes each. At 4, she rejected a little of the barley water. The pulse is 102, more quick and slightly hard; skin warm, though not above the natural temperature; still yawns; the nose has not yet recovered its natural heat; oozing of blood from the external angle of the wound continues.

11 P. M. The patient is in excellent spirits; talks cheerfully; has had frequent short sleeps; pulse 108; skin dry, and slightly above the natural temperature; palms and tongue dry; considerable thirst for cold drinks; the nose has recovered its natural temperature; reaction perfect. Catheterism: 3viii clear and high-coloured urine. Changed the position of the patient, and her under clothing. Allowed iced drinks.

16th, 9 A. M. For about two hours in the middle of the night the pulse was 110 to the minute. The patient, however, had a comfortable night. The pulse now is 108, soft, less quick, and more full; skin soft and more natural in feel; temples moist; less thirst; tongue dry in the centre; still complains of her back, and some headache. The patient is quite cheerful; laughs, and talks, and says she "feels like herself again," and thinks she is going to get well. There is very little oozing from the wound, the clothes beneath being stained more by the water dressing than by blood. By catheter drew away 3viii of pretty deeply coloured urine, which, on cooling, deposited a copious sediment of mucus. Changed her clothing and position.

1½ P. M. Dr. Fox called to see the patient with me; is delighted with her condition, and says he never saw a patient in a better situation after any operation; pulse, 104.

6½ P. M. Complains of some flatulent pain in the left iliac region. Gave forty drops of McMunn's Elixir of Opium. Drew off 3viii urine, having a peculiar burnt smell, and a bitter taste.

10 P. M. Found her sleeping very sweetly; the pulse and respiration were timed while she was asleep, the former was 98, the latter 26. She awoke cheerful. Drew about 3iv of pale urine; there is no weeping, or at

least very little, of bloody serum from the wound; changed her clothing, during which she helped herself.

17th, 9 A. M. The patient has had a most delightful night, sleeping most all the time. Pulse 96, both before and after changing her clothes. There is a decided purulent odour arising from the wound. Found her reading a book, which I removed, as improper. Catheterism: urine Zxij . She is desirous of engaging in conversation.

11 P. M. Has had a very comfortable day; was cheerful, talkative, and disposed to be jocular. In the evening some restlessness, until the catheter was used. Pulse 88, soft and full; respiration 25; skin soft and cool.

18th, 9 A. M. Rested well all night; pulse 88, and natural; skin and tongue natural; a fine flow of spirits; the patient jokingly asked to sit up on the rocking-chair. Catheterism: urine Zxviii . Menstruation since last evening at 6 P. M. Allowed her to-day chicken water, thin mutton broth, oyster broth, and ice cream. Ordered Zss of castor oil, to be taken about 11 A. M.

6 P. M. Administered an injection; it came away without any feculent matter. Repeated the oil.

10 P. M. Oil has not operated. Ordered injections every two hours. Drew off Zxx of urine, having a strong phosphatic odour.

19th, 4 A. M. The injections having brought away very little feculent matter, a tablespoonful and a half of oil were administered, which in half an hour was followed with a discharge of *fæces*, unaccompanied with pain.

9 A. M. The oil has operated well, and is seen floating on the discharge. Removed Zxvj of urine, containing phosphatic deposit. For the first time has a desire to urinate.

2 P. M. Examined the wound; it promises to heal by the first intention, no inflammation on the edges. All symptoms highly favourable.

20th, 2 P. M. Symptoms all favourable; pulse 84; passes urine without the catheter. Dressed the wound; removed all the needles; the wound has healed by first intention, excepting at the two points where the ligatures escape, and here there is merely a show of laudable pus.

25th. The patient has been continually improving, and is allowed to sit up in bed to-day, with a chair behind her.

On Thursday, March 29th, she commenced sitting up out of bed, and afterwards continued to do so daily.

The ligature of the pedicle came off on Tuesday, April 3d, and that of the vein the day after. On Thursday, April 12th, the patient rode out for the first time, after which she continued to take exercise daily, until her health was perfectly re-established.

There was no suppuration from the wound excepting along the track, of the ligatures, and this certainly did not amount to over a teaspoonful during the whole period.

Subsequently to the operation, the patient was visited occasionally by those medical gentlemen present at the time, and also by Doctors Fox, Norris, West, Dorr, Harry, Gallaher, Whiteside, and Brookfield.

The tumour weighed eight pounds, measured round its greatest circumference two feet three inches, and round its least, twenty-three inches. It is fibrous, or fibro-cartilaginous, and, in most of its characteristics, resembles the tumour I removed from Miss L. P., in 1844. [See *Amer. Med. Journ.*, April, 1845, p. 320.] The drawings, Figs. 2 and 3, exhibit the general appearance of the tumour. The specimen, and a wax cast of it, taken by Prof. Grant, may be seen in the pathological museum of the Medical Department of Pennsylvania College.

Fig. 1.

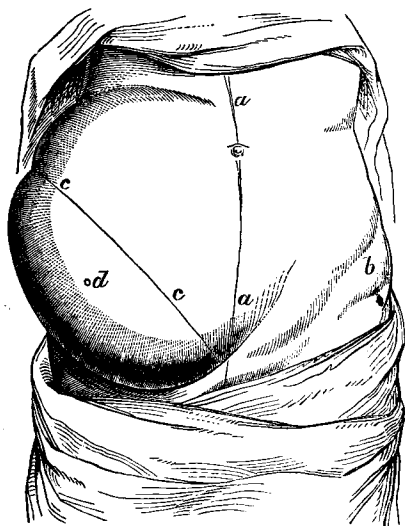


Fig. 2.

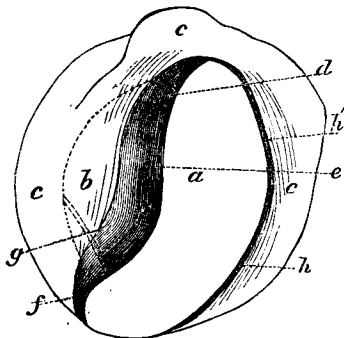


Fig. 3.

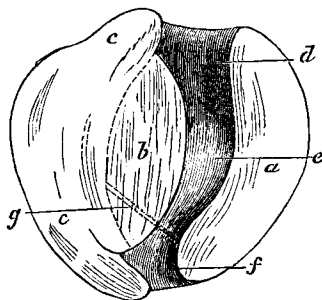


Figure 1 represents the tumour before its removal; *a a*, the linea alba; *b*, the left hip bone; *c c*, the sulcus; *d*, the cicatrix left by the trocar.

Figures 2 and 3 represent the tumour after its extirpation: *a* the portion below Poupart's ligament, [the sulcus, *c c*, in Fig. 1.] and which is not covered with peritoneum; *b*, enclosed by the dotted line, the portion attached to the iliac fascia, and likewise not covered with peritoneum; *c c c*, the great body of the tumour, which occupied the abdominal and pelvic cavities, and covered with peritoneum; *d*, a fissure from one and a-half to two inches deep, the bed of the crest and superior spinous process of the ilium; *e*, a fissure made by the rim of the pelvis; *f*, continued to the symphysis pubis; *g*, the bed of the external iliac vessels; *h h*, an indentation from a half to one inch deep, formed by Poupart's ligament.

Remarks.—Difficult as it was, before the operation, to decide upon the real character of this tumour—whether it was a fibrous tumour of the ovary, or of the uterus—it is, perhaps, equally as difficult, since the operation, to decide this question. In the heading of this report, I have called it an *ovarian* tumour, because its whole history, and the character of its pedicle, would seem to indicate this; and yet its peculiar structure is precisely the same as that of those solid tumours which originate in the uterine tissue itself. In the extra-uterine fibrous tumours, the pedicle is usually short, thick, and fleshy, while in ovarian tumours it is as frequently long, thin, and membranous. The latter condition obtained in this case, and yet there is a pathological specimen in our

museum, of two small fibrous tumours, attached to the posterior wall of the fundus of one uterus, both of which have membranous pedicles, similar to those found in ovarian tumours. If this, therefore, were a uterine tumour, with a membranous pedicle, then the presence of the Fallopian tube was an accidental occurrence.

From the intimate connection which the tumour had with the bones of the pelvis, it might, at first view, be supposed to be independent of both the ovary and uterus, and, like other hard periosteal tumours, to have originated from the periosteum of those bones, its attachment to the Fallopian tube being also accidental, and its relation to the broad ligament of the uterus being established by its development in that direction. This, perhaps, would be the most plausible inference, if it were not for its early history; but one is entirely irreconcilable with the other. In a pathological point of view, therefore, the questions are particularly interesting: How did this tumour become so closely incorporated with the bones of the pelvis? and how can it be explained that Poupart's ligament was dislocated by the tumour, and imbedded in its substance, if it be either ovarian or uterine? These questions, I think, may be satisfactorily answered. The patient had two attacks of inflammation in the right side low down, with an interval of about three months between them. During the first attack, she discovered the tumour. Lymph, no doubt, was thrown out at this time, which caused the tumour to be attached to the iliac fossa, the adhesions being long enough to allow of considerable motion. After this, the patient became pregnant, and as the uterus enlarged in proportion as gestation progressed, in the same proportion the tumour became more and more firmly fixed into the iliac fossa, and, in consequence of being pressed into the right groin by the enlarging uterus, it formed attachments to Poupart's ligament. Four months before this parturition, the tumour became so adherent that the patient could not move it, although during this period it did not appear to enlarge. After parturition, the tumour, becoming more active, began to grow, and developing itself in all directions, it, as it were, wedged itself under Poupart's ligament, which, adhering to the tumour, was elevated by it as it grew, until it was completely detached from the groin. As the tumour continued to grow rapidly, carrying with it the attached Poupart's ligament, it entirely destroyed the normal relations of the latter to the pelvis. Its pubic and iliac extremities only retained their natural attachments, while the rest of the ligament, with the inserted muscular fibres, was buried in the tumour, and elevated several inches, so as to be entirely dislocated from its original bed. This view of the development of the tumour is supported by the external appearance of that portion of it, *a*, Figs. 2 and 3, which was below Poupart's ligament [the sulcus, *c, c*, Fig. 1], as it is not covered with peritoneum, but has, instead, muscular and aponeurotic fibres traversing its surface; while the rest or great body of the tumour, *c, c, c*, Figs. 2 and 3, which was above Poupart's ligament, and within the abdominal cavity, is covered with peritoneum.

Having thus shown how Poupart's ligament, became involved with the tumour, and dislocated by it, I will now inquire into the curious circumstance of a loose tumour becoming so intimately incorporated with the bones of the pelvis. The above ligament has had much to do in this matter. After the tumour had formed adhesions to the iliac fascia and to the ligament, and after it had developed itself beneath the ligament, so as to raise the latter from its natural position to one across the tumour, it can readily be conceived how a ligament, as strong and resisting as Poupart's, and situated as it was, bound firmly by its two extremities to the iliac and pubic bones, and traversing the tumour, must have powerfully opposed its upward development, and impelled it forcibly upon the bones beneath. The tumour, thus confined between two fixed points, while it still continued to grow, necessarily overlapped the unyielding bones of the pelvis, and formed those strong adhesions which were found to exist, and which rendered the tumour so immovable.

With regard to the use of chloroform in gastrotomy, I would remark that it is likely to strip this operation of some of its dangers. Such perfect quietude of the diaphragm, of the abdominal muscles, and of the viscera, is maintained, that the operation is greatly simplified and facilitated. It does away with the necessity of constantly handling the ejected bowels, to keep them out of the road of the surgeon's knife, a circumstance, in itself, calculated to induce inflammation of the peritoneum, in consequence of the greater or less contusion, by this means, of the coats of the intestines. These tender viscera, also, in not being expelled from the cavity of the abdomen, are not exposed so much to the irritating effects of atmospheric air and diminished temperature, other causes for inflammation. Besides, the operation is not accompanied with, or followed by that shock to the system which almost invariably is connected with it under other circumstances, and which is succeeded by a corresponding reaction tending to inflammation. And it also enables the operator to do without an opiate to quiet the peristaltic action of the bowels at the time of the operation. These effects were fully illustrated by the above case, and also by two other more recent cases, which I expect to report in the next number of the Journal. The use of anæsthesia, therefore, is calculated to render gastrotomy a much less dangerous operation.

In consequence of the muscular excitement occasionally induced by the inhalation of ether, I have never been reconciled to its use; and have, therefore, always preferred the employment of chloroform. The latter I have used very frequently without producing any alarming symptoms. In two cases, however, in which I administered it, soon after its introduction in surgery, it was followed by unpleasant results. Both patients were ladies. One of the operations was a subcutaneous section of a ganglion on the wrist joint, the other the extirpation of an encysted tumour on the arm. In both, after the effects of the chloroform went off, syncope immediately supervened, which was followed by vomiting of undigested food, and subsequent speedy recovery. In both cases, the chloroform had been inhaled soon after taking a meal, and

had the effect of arresting digestion. Since then, I have never given it on a full stomach, and no such effects have followed.

Although I have said that no alarming symptoms have ever happened in my hands from the use of chloroform, I have, notwithstanding, ceased giving it by itself, in consequence of several cases of death from it having been reported. I now substitute a mixture of one part of chloroform and two parts of ether, liquid measure, which has a most delightful effect upon the patient. The too great sedative action of the chloroform is counteracted by the stimulating effects of the ether, and, *vice versa*, the too stimulating action of the ether is counteracted by the sedative effects of the chloroform. From half a drachm to two drachms will accomplish the object in from one to two minutes. So soon as sensation is destroyed, I withdraw entirely the agent, allowing only the respiration of pure atmospheric air. I consider a linen handkerchief, or napkin, ironed smoothly, and folded in the form of a funnel, so as to enclose the nose and mouth loosely, infinitely superior to all other contrivances for its administration, and also safer. It never completely excludes atmospheric air, and consequently prevents the asphyxia likely to be induced by the undiluted anæsthetic vapour.

I observe, that Dr. Warren, of Boston, uses two parts of the purest alcohol, with one part of chloroform. My colleague, Professor Gilbert, who first employed these agents mixed, uses one part of chloroform with seven parts of ether. I think they, and others, upon trial, will much prefer the mixture which I am in the habit of employing.

Before closing this paper I desire to correct a statement made by Dr. Lee, in his valuable work on *Tumours of the Uterus*, pp. 198-99. Dr. Lee, speaking of the case of fibrous tumour of the uterus, which I reported in the *Amer. Med. Journ.*, April, 1845, p. 309, says that my patient "*had a very narrow escape from great hemorrhage*," that the "*hemorrhage was excessive*," and that "*this patient nearly lost her life from the great bleeding consequent upon the operation*." Now the truth is, that the hemorrhage was trifling—indeed, none at all from the patient. At page 314 of the above Journal, the report reads as follows: "The pedicle was now severed close to the tumour. At this instant, a gush of blood took place from the cut surface, but it being black, our apprehensions were soon allayed—it was the strangulated circulation of the tumour, amounted to from two to four ounces, and was the only hemorrhage that occurred."